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industry at his former charge at St. Joseph. Mr. R. A. Campbell, legislative reference librarian, California state library, responded to a request for an account of the legislative reference work of the state library and Mr. R. H. Johnston outlined the work and methods of the recently established library of the Bureau of railway economics at Washington, D. C.

On motion of Miss Grace M. White, of the Los Angeles public library, it was voted that the association ask the editors of the Municipal Journal and Engineer to publish separate copies of this Municipal index, for sale, preferably printed on one side only.

After some interesting and instructive

informal discussion it was moved by Mr. Campbell, seconded by Mr. Wright, that the officers of the Association be re-elected for the coming year. The officers of the past year were as follows: President, J. C. Dana, Free public library, Newark, N. J.; vice-president, Robert H. Whitten, Public service commission, New York City; secretary-treasurer, Guy E. Marion, 93 Broad St., Boston; executive board, the president, the vice-president, the secretary-treasurer, George W. Lee, care Stone & Webster, Boston, Herbert O. Brigham, State library, Providence, R. I., John A. Lapp, State library, Indianapolis, Ind. The secretary was instructed to cast a ballot, after which the meeting was declared adjourned.

CATALOG SECTION

FIRST SESSION

Saturday, May 20, 2:30 p. m.

SYMPOSIUM ON CATALOGING FOR SMALL LIBRARIES

Miss Jeannette E. McFadden, librarian public library, Santa Ana, California, presided, in the absence of Mr. Andrew Keogh, of Yale university, chairman.

After reading of the minutes, Miss ARTHENA M. CHAPIN, librarian public library, Redlands, California, opened the program with a paper on

CATALOGING IN A SMALL CITY LIBRARY

Miss Chapin said in part:

The first rule is to make the catalog simple. The second is to make the entries and imprints brief. They should be as brief and as simple as can be done without taking away from the clearness of the catalog. The staff of a small city library is limited, and the cataloger must do other work, so it is a large item for her to economize time by shortening the detail work of her cataloging. Of course she must be sensible in this, and must always keep before her the point of view of her public, and while she is lessen-

ing her own work she must not omit anything which will take away from the ease of the use of the catalog.

It is not necessary to spend much time looking up full names, or dates. The object is to have names entered uniformly. It is oftentimes more confusing to the public to find a name entered in full, especially when this name is somewhat different than the one by which the author is best known, than to have the name entered without sufficient fulness. It seems to me that the best rule is to enter always the name by which the author is most commonly known. It is excellent training at a library school to compel the student to look up real names and full names, but it is not so practicable to make use of all this training when actually engaged in preparing a catalog for the public.

Another way in which the cataloging may be shortened is in the imprint. The size, pages, illustrations and plates, may be omitted as a rule, except in books where these might add value to the enquirer. If your library is one in which there is much student work, or research work, of course these items should be included, but in the average public library no mention need be made of illustrations or plates except in

extra illustrated books; and the size and number of pages never seem necessary. The publisher's name should be used rather than the place of publication.

In fiction use only the author's name, the title and date. As for the classification, I am not fully persuaded that the custom of some libraries of omitting Cutter numbers from fiction, is desirable. Of course no classification number should be used, but a Cutter number seems to me almost indispensable.

It is not necessary to carry out the classification number in non-fiction beyond two decimal points, except in rare cases. It is better to make all American poetry 811, and English poetry 821, without attempting to subdivide into periods. Also, certain periods of history are more confusing than otherwise, when brought out under a long subdivision, as, for instance, the many places provided for in Dewey for the civil war period, or for more modern events in United States history, or many European periods.

The problems of a cataloger in the library of a large city are, of course, in many respects just the opposite to these, but the small library needs no such detail of long title and sub-title, editor, etc., for the use of its public. In fact, co-editors and co-authors, translators sometimes, need not be emphasized by a special added entry card, in the catalog of the small library.

I suppose all of us are anxiously awaiting the new Decimal Classification. Doubtless there will be a definite place for the many new subjects which have come into being and prominence since the last edition. It seems to me some of the distinctions made in the classification are unnecessary for the public library. For instance, I see no reason why English and American poetry should be separated, or English and American essays, or dramas. The patron of a public library who asks to see the books of poetry must be shown the shelves for American poetry and English poetry, and French and German poetry, unless he has a certain writer in mind. Why would it not be clearer for the public, easier for the cataloger and less confusing all around.

to place all poetry written in the English language, in one place in the classification, and also all essays, dramas, miscellanies, etc. When a book is written in French or German, it should be classified with French and German literature, but if written in the English language whether by a Frenchman, a Swede or a Japanese, why shouldn't it be placed on the shelves with other books of literature in the English language.

Although the Library of Congress cards are in many ways a great help to the cataloger, especially in suggesting subjects, and in furnishing full names, yet the extra labor involved in sending for the cards, the liability of a delay in receiving them, the necessity for adding the call numbers, the subject headings, and making certain extra cards, seem to be great enough to make the cataloger in the average public library doubt the advisability of using them. The fulness of entry is of course a great advantage, and one sufficiently large to warrant purchasing these cards by many librarians.

There is one place where the cataloger in the small library must use a large amount of wisdom, and also must conscientiously and painstakingly force herself not to shirk, and that is in the analyticals. Analyticals are important in catalogs of any size, but in the catalog of the small library where material on many subjects is apt to be scarce, they are most necessary. In making analyticals, the subject analytical is for the most part the only form of entry needed. I think it is the experience of most libraries, large or small, that the use of the card catalog by the public is limited to a select few. The mere mention, to the casual inquirer of a certain book, that he may find whether the library contains it and if not what other books there are on the same subject in the library by looking in the card catalog—I say the mere mention of this is sufficient to cause the casual inquirer to say, "Oh, I think I'll just look along the shelves and see if I can't find something else. I wasn't very particular about it anyhow."

Probably every cataloger prides herself on her ability to place herself in the atti-

tude of the public, and having made cross-references from every conceivable subject (and by the way, cross-references are a most important factor in the cataloging of the small library) she feels that she at last has left no loophole whereby the searcher after knowledge could miss finding exactly what he is after, provided it is in the library. But this feeling of complaisance rests only on the inexperienced cataloger, for the one who has been through the ordeal knows that only after many trials the desired result is approached.

The shelf-list card may be shortened to a mere entry of author and brief title. The author's initials may be omitted in most cases, except where there might be a confusion through similarity in name; the briefest title may be used which will indicate the book, and in fiction, no date need be given.

To sum it up: brevity, clearness, consistency—these three are the essentials of cataloging in a small city library. The cataloger who follows these rules cannot go far astray in her endeavors to give the greatest satisfaction to the public, and to make accessible every book in the library.

In the discussion that followed, Miss Hitchler deprecated the use of either class or Cutter number in fiction, saying that the confusion of arrangement on the shelves, illustrated by Smiths and Stevensons, was not so important as the saving of time, and the better appearance of the books.

The suggestion that all poetry and other literature written in the English language be given one place in the classification aroused several dissenting voices. Miss Babcock of Los Angeles thought the educational value of a close shelf classification important and did not think it involved an appreciable saving of time. Another speaker doubted the advisability of tampering with the classification, saying that it usually ended with a confusion of numbers.

That the cataloging for a small library should be done as accurately and carefully, and with perhaps greater attention to analytical entries, was conceded, although greater brevity was more desirable than

in the catalog of a large or reference library. The question of growth must always be taken into consideration.

Miss FRANCES R. FOOTE, librarian of Occidental college, Los Angeles, continued the program with the following paper on

CATALOGING FOR SMALL COLLEGE LIBRARIES

After rashly promising to write a paper on cataloging for small college libraries, I began to wonder just what was meant by that title and whether my own experience could be considered representative of that of the average librarian of the average small library. A glance through the pages of the bulletin issued by the Bureau of Education entitled "Statistics of public, society and school libraries" soon convinced me that there were many small libraries where in all probability the conditions were very similar to those with which I am best acquainted, that is, where the librarian serves as reference librarian, cataloger and even desk attendant with perhaps only one more or less experienced assistant, or possibly relies upon student help altogether. In either case, the cataloging becomes a problem which must be solved as quickly and easily as possible, not only because the librarian and the college public need a catalog, but because the efficiency of the assistants or student attendants largely depends upon it.

While in the past there has been much discussion as to the choice between printed or card, dictionary, or classed catalogs, the small and especially the new college library will in all probability decide upon the dictionary card catalog as the one best suited to its needs.

It must, I think, be apparent that the two principal factors which enter into the determination of the general policy to be followed in cataloging a library are first the size and general make-up of the library and second the purpose for which it exists. Considering first the constituent elements which enter into the up-building of a college library, we find that the very manner of its

growth is generally conducive to irregular development, that is, some classes will greatly exceed in size and value other classes of perhaps little if any less real importance.

Those who use the catalog, and especially those who do not use the catalog, but rather pursue their investigations through the librarian, rarely have any idea of either the absolute necessity of a catalog or the work involved in making one. The college professor and member of a library committee who remarked one day when he found me studying the "A.L.A. list of subject-headings," "How lucky you librarians are, with time to read poetry" saw only the wide margins of the aforesaid book, and his remark was quite natural considering his probable state of ignorance concerning the details of library management.

Another thing discouraging to the college library cataloger is the difficulty only with which the necessary books and tools can be obtained. I suppose and indeed have been told that this is common in public libraries as well, but it is certainly too true that in school libraries the librarian's needs are often subordinated to the needs of all other departments. Fortunately it is true that many of the general reference works to be found in even a small college library will supply much of the information which in a large library would be sought for in special cataloger's aids.

Enough has been said to make it evident that under average conditions cataloging becomes a task which can only be accomplished by outlining a definite policy which will admit of the adoption of such methods as will the most easily and economically achieve the sought-for end, that of making available not only the visible contents of the library, but much that is hidden from ordinary sight.

Inasmuch as the librarian of the small library need have no fear of a catalog becoming too large or bulky to house, it will be rather the lack of time which will determine the limits to which the work is carried than the size of catalog which is either possible or desirable.

The cataloger who is beginning work to-

day will find it much easier to determine upon the general lines to be followed than the one beginning work even a few years ago, for the whole trend of practice today is toward uniformity, and the longer one works with any of the codes of rules in general use today the more one realizes that they are founded on sound common sense as well as scholarly research. These rules are so well established and formulated that this paper will make no attempt to even touch upon the technique of cataloging, but instead will be confined to a few mere suggestions of ways and means whereby a small college library can be cataloged with the minimum expenditure of time and labor.

I doubt if it is possible to find any reliable statistics of the cost of cataloging in the type of library with which this paper deals, for much of the work is done at odd moments, subject to constant interruption, but we can feel sure that the use of the Library of Congress catalog cards as largely as possible is not only the best but indeed the only possible provision whereby the cataloging can be done at all; but my own experience makes me feel that unless cards can be obtained corresponding very closely in edition and imprint to the book for which they are desired, it is better to do all the work by hand than to try to make many erasures or corrections. I understand than some libraries disregard differences in date, edition and publisher, in ordering cards, but the labor involved in making corrections must in many cases be greater than in doing the work first-hand.

When we have been able to obtain the proper Library of Congress cards, we need pay no more attention to fulness of entry, for that in minute detail is done for us, but taking it for granted that the small library will not find it possible to catalog books by hand or typewriter with all this detail, we must come to some conclusion as to what is essential information and required in the case of author and subject entries, in the absence of printed cards. This will depend to some extent upon other library records, for while we must have somewhere enough memoranda to identify

each volume, yet it is not at all necessary to duplicate all this information as much is done if the accession book is fully used and if the cataloging is carried on with fulness of entry. While I have never quite wanted to give up the use of the accession book entirely, my preference is to simplify this record and supply to the public in the catalog the edition, date and publisher, which with author and title I take to be the really essential knowledge needed of the average book. I can, however, see that there might be conditions under which it would be more practicable to have these records made in the accession book with fulness than in the catalog. It is undoubtedly true that an inexperienced assistant would be able to keep the accession book records with accuracy when it would be absolutely impossible to entrust the same person with any of the cataloging. If student help is plentiful, the small library might reduce the work of cataloging very considerably by thus keeping a full accession record, and in some cases, if not in all, abbreviate the catalog entries by leaving out everything except author, title and date.

In a college library there are of course certain classes where such abbreviation would be obviously inadvisable, for instance in that of "Science," but in other classes, particularly that of "Literature," it is possible in some cases to give only author and title, leaving out edition, publisher, and even date, without injury to the practical usefulness of the catalog. A large proportion of this class is likely to consist of cheap reprints, but Boswell's "Life of Johnson" is Boswell's "Life of Johnson," whoever the publisher and whatever the date. If our Boswell is the one edited by George Birkbeck Hill or some other particularly good edition, then we should of course have a full entry, but an unimportant edition requires no bibliographic detail.

I am aware that the foregoing suggestion must have a distinctly heretical sound to some of you and, as I have stated, it is not to my mind the preferable thing to do, but it might be the practicable thing.

To proceed to the short entries. Editor and translator cards are as brief as possible and a college library will find that comparatively few title entries will be needed, for so many of our books will have decidedly undistinctive titles. In the case of the masterpieces of literature with which college libraries are well supplied, we will use title references in many cases, rather than duplicate title entries.

Now that the Library of Congress sometimes enters under the pseudonyms a few authors who are better known by their pen names than their real names, the library can feel that it is no longer breaking a tradition if it adopts college phraseology in this matter. Probably no college bulletin ever announced a course in the "Nineteenth century novelists" including Mary Ann Evans Cross with Dickens, Thackeray, Jane Austen and Scott as the novelists studied.

Everyone agrees that successful dictionary cataloging calls for the most careful and painstaking discrimination in the choosing of subject headings, that each book should be entered under the word which most peculiarly and specifically describes the subject of the book, and in order to gain this end the main subject-heading is often followed by sub-divisions which serve to qualify or modify it to some extent. A tendency toward elaborate subdivision is noticeable in the suggested subject-headings on the Library of Congress cards. It is a practice which is of course necessary in large libraries but I believe easily overdone in small libraries, for it may mean the duplication of entries for the same book under the same general heading, but under different sub-divisions, and even when not carried to such an extreme as that, there is still the danger that in searching for books dealing with one phase or aspect of a subject, books treating the same subject, but of a general character may be overlooked. For instance, in our library we have three books on Fungi, for all of which we were able to get the Library of Congress cards. The suggested subject-headings on the cards for two of these books was simply

"Fungi," but on the third the subdivision "North America" was added. Again we have only six books cataloged under the subject-heading "Gases," but had we followed the suggested subdivisions three would have stood with the heading "Gases," the fourth heading would have been "Gases-Analysis," the fifth, "Gases-Kinetic theory of," the sixth, "Gases-Liquefaction of," and yet the scope of each book was plainly indicated by the title in each case. These examples have been given not in the way of criticism of what is undoubtedly a necessary practice in the case of large libraries, but to show that such subdivisions of the subject headings are not for the small library. Sooner or later as the library grows, and as the cards under the main subject-heading increase in number, it will very likely be necessary in many cases to add the sub-divisions, but this can easily be done as the need arises.

Given a typewriter with the bi-chrome ribbon attachment, the use of red ink for subject-headings is, I think, most desirable. This is particularly so when the library is strong in biographical works and critical essays on the authors studied in the literary courses. It is often quite confusing to anyone who is not accustomed to consulting card catalogs to distinguish between author and subject entries when the same name appears first as author and again as subject.

There is one respect in which even the small college library is quite likely to differ very largely from the same sized public library, and that is in the use made of indexes and bibliographies. In many small public libraries it is thought a mistake to encourage readers to use such books themselves as the "A. L. A. index to general literature," the "Poole's index," or the "Readers' guide," because of the discouragement likely to follow when it is learned how little of the material thus found can be supplied by the library. But the college library can justly feel that it is a part of the educative process to not only require the student to use these books, but to encourage him to become acquainted with just as many books of that character as possible.

This practice will not only help the student, but by taking advantage of everything of this kind which has already been done by others, it makes it possible to accomplish much other work which would otherwise be out of the question, for there will remain many books not already analyzed by such co-operative undertakings, which will well repay in service for the time and effort spent in analytical cataloging. Now that the Library of Congress cards contain a table of contents in many cases, it is possible to analyze a volume of essays with very little work by following the directions in the Library of Congress handbook.

Personally I like the use of the slanting line drawn from the subject-heading to the underscored chapter or essay in the table of contents. It is a convenience to add the inclusive pages, but it is sometimes a difficult matter to find room on the card for them, and they do not as a rule, attract the notice of the ordinary user of the catalog. When Library of Congress cards suitable for use as analyticals are not procurable, a very simple and brief analytical form can be followed so long as it has enough uniformity with the Library of Congress cards to permit of easy filing and arrangement.

Another phase of analytical work which cannot be too strongly insisted upon is that of entering both bibliographies and maps. Historical maps are always in demand, and there are never enough atlases to supply all the members of a class at the same time.

It is very noticeable in a college library that the same subjects are called for over and over again. This is true not only because whole classes are studying the same subject at one time, but because the same process is repeated each year. In some cases therefore a bibliography of material in the library will take the place of too minute analytical work. Such a bibliography once prepared for a course given each year may be used again and again by merely rewriting occasionally for the sake of inserting recently added material, and for the sake of convenience it should include the references found by means of the co-operative and printed indexes. A carbon copy of this list or bibliography furnished to the

professor or instructor is a small attention but one much appreciated. Such a bibliography also saves much time in getting books upon the reserved shelves, but it should itself be entered in the catalog, else its existence may not be suspected some time when it is needed.

There are many ways in which the practical usefulness of a card catalog can be increased, which will occur to any one who is interested in the subject. Any material once found perhaps by long searching can be produced again at a moment's notice, if it is entered at once in the catalog. Not long ago I saw a catalog which indexed a collection of newspaper clippings by simply adding the words "See clippings" to the cards containing the subject-headings. Of course in this case no information was given to the catalog either as to the contents or the character of the clippings; but for practical purposes it is enough to be directed to the clippings themselves and that can be done most easily by some such simple means.

After all, cataloging for a small college library is essentially the same process as cataloging for a small public library or any other library for that matter, the only real and vital differences being the conditions under which the work is done and those which arise from the variation in the nature of the demand to be met by the catalog.

The Chairman appointed Artena M. Chapin, librarian of the Redlands, Cal., public library, and Matthew H. Douglass, librarian of the University of Oregon, as the nominating committee of officers of the Section for the following year.

SECOND SESSION

Wednesday, May 24, 9:30 a. m.

SYMPOSIUM ON CLASSIFICATION

In the absence of Mr. Andrew Keogh, chairman, Miss M. M. Oakley, secretary, presided. The first paper presented was written by W. P. CUTTER, librarian of the Engineering Societies library, New York

City, and read by Miss A. L. Sawyer, librarian of Mills College, Cal.

THE EXPANSIVE CLASSIFICATION

The Expansive Classification owes its origin to the study and labor of Charles Ammi Cutter. It was designed primarily as a working classification for the library of the Boston Athenæum, which at that time contained 100,000 volumes or more, to which the members of the Athenæum were allowed free access. The original notation comprised some features which appeared to stand in the way of its general acceptance, and the author devised another notation (not however changing the classification), which was applied to the Cary Library at Lexington, Mass. There were so many requests from persons interested in other libraries to have the Athenæum classification, with the Lexington notation, adapted to their needs, that Mr. Cutter was led to prepare a scheme applicable to libraries of every size from the village library in its earlier stages to the national library of a million volumes.

The old "fixed location" of books in definite places on definite shelves has almost universally given way to the "relative location," by which each book has its place assigned, not to any fixed location in the library, but to those other books to which it is related in subject. This grouping together of all books on the same or related subjects is of the utmost importance wherever the public is allowed free access to the shelves. Indeed, the "free access" system is in large part made practicable by systematic classification. Even where access to shelves is not granted, the time saved in getting and replacing books is more than enough to justify the adoption of some good classification. The rapid adoption of various schemes by all classes and sizes of libraries is one of the strongest arguments in favor of the practical nature of classification and of its adoption by those libraries which do not as yet have it.

Inasmuch as a scheme of classification once adopted can be discarded only with considerable difficulty, it is important that

the system chosen should be both theoretically correct and practical in application. It should arrange the books according to modern ideas and provide for books which are in actual use. A good classification should be: (1) Easy to apply. Its *notation* should be simple, its classes easily distinguishable, its call numbers as short as possible, its practical application easy for the inexperienced as well as the experienced cataloger. (2) It should be scientific and logical so that the public consulting the shelves may be able to find books on related subjects grouped together. Its point of view should be modern so that modern scientific works may be assigned to proper positions. (3) It should be flexible, allowing choice in special schemes for special libraries or collections. (4) It should be expansive, providing simple schemes for small libraries, and an elaborate scheme for large libraries. Provision should also be made by which, as a small library increases in size, the classification may be made more minute with a minimum of additional work or change in the books already classified.

The notation of the Expansive Classification is based on the use of the alphabet from A to Z for subjects, making subject subdivisions by the addition of second, third or fourth letters. Figures are used only either to indicate form subdivisions (where the digits 1 to 9 are used), or geographical subdivision (where the numbers 11-99 are used). These subdivisions by numerals are common to all classes, even the most minute, and cannot be mistaken for subject divisions. The use of the letter notation results in simplicity. The single letters of the alphabet furnish 26 great subdivisions; the addition of a second letter allows each of these to be again divided into 26 or 702 in all; the third letter furnishes 26 divisions of each of these, or a grand total of 14,304; finally, the fourth letter furnishes 367,280 total subdivisions. To allow of such minute subdivision on a decimal system requires six figures.

The classes are easily distinguished; there is not the danger of mistaking a letter for another; while when figures are

used, the 3 and 5 are not easily distinguished, and the 1 and 7 are often mistaken. No single letter can mean more than one thing, whereas, where figures are used for form, subject and geographical divisions, there is great danger of confusion.

The call marks are short, even for the most minute subjects. This is especially noticeable in the minute divisions in science. For example: "Economics of electric power plants" is TEO; "Emerson transmission dynamometer" is TFCP; "Arthros-traca" is OTG; "Comparative anatomy" OB; "Electric currents" TE (in the Decimal, 621.313); "The Knights of Malta" is FTM.

Especially should it be noted that the use of the local list numbers from 11 to 99 results in short marks for all books having local significance, especially in geography and history.

The practical application is easy to the most inexperienced person. For many years I have had pupils in cataloging and classification. They have had generally only a high school education or its equivalent. Yet within a few weeks they have been able to classify rightly a large percentage of the books. Conversely, young girls and boys have learned very quickly to find the books on the shelves, without special help, and without consulting the catalog.

The Expansive Classification is scientific and logical. It groups, for instance, philology and literature together. Language is X, literature Y; the same local list may be applied to each. It places Architecture with the Fine Arts, and Building with Technology. It classes Mining and Metallurgy together. The general development of the classification is from the spiritual through the historical to the scientific, and thence to the methods of recording thought. Throughout, a logical sequence has been followed.

It is modern in its science. The natural history, mathematics, astronomy, physics, technology, have all been compiled within the last few years. There is provision for modern discoveries in pure and applied science. There are places for aeroplanes, automobiles, radioactive substances, factory costs. It is no longer necessary to classify illuminating gas and smallpox in adjacent

classes. The great subjects of biology are developed on the basis of the most modern knowledge and nomenclature; for example, the zoölogy is based on the last edition of Bronn's "Klassungen und Ordnung des Tierreichs." The arrangement of Ascomycetes follows that of Strasburger in 1908, the Botany in general the last edition of Engler und Prantl's "Pflanzenfamilien," abandoning the antiquated nomenclature used in every other classification.

It is modern because it has not only been made recently, but the most recent authorities have been consulted.

Flexibility is secured by numerous cross-references to related or alternative places. Whole classes have alternative schemes; there are two for philosophy, radically different, but so designed that a part of each may be used. A scheme is given for the arrangement of the whole library or any part of it on a geographical basis. Special schemes are worked out for special collections, especially in literature, e. g. those for Goethe, Dante, Shakespeare. In the original draft for the sciences, the letter notation allows of such great flexibility that in many instances the classification has been entirely worked out before the notation has been applied. It would be manifestly impossible for any such procedure to be followed using a decimal notation.

The Expansive Classification provides seven classifications of varying length, the first containing ten classes, the second thirty-one classes, and the final development, the seventh classification, many thousand, thus adapting it to use in the smallest library and at the same time provide for any possible amount of growth, with the smallest possible amount of additional labor in changing book marks on the records of the library. Abundant provision is made for further subdivision of classes and the introduction of omitted or overlooked subjects. Being practically unlimited by the notation, additions and changes may be made with the utmost freedom.

Subjects vary according as they relate to different countries. Thus in zoölogy, there are not only books which treat separately of the invertebrates and of the vertebrates,

of mammals and monkeys, but also books which describe the animals of Africa, of Madagascar, of Borneo. So in the form class Literature the form divisions marked by letters are Fiction, Drama, Poetry, Oratory and the like; the local divisions are English literature, French literature, German literature. These differences in nature require a corresponding division on the shelves when there is material enough to divide. Since the flora of Africa is not the same as the flora of North America, the books on it should not be in the same place in a botanical library. The history, laws, language and literature of England are so diverse from the history, laws, language and literature of France that no general library of size would for a moment hesitate to separate them. This kind of subdivision it is desirable to mark in some different way from the other, for two reasons: first, because it is different, a division not by subject but by locality; and second, because it is suitable and convenient that the mark for each country should be the same in all the different classes, and also that it *should* not be used for any other purpose. We cannot take letters for this purpose, for they are already taken for subject marks; we therefore use figures. If for example, 45 is the mark for England, and D is Church History, then D45 is English Church History; F is History, F45 English History; O is Zoölogy, O45 is English Zoölogy. Whenever one meets 45 one knows it means England, and can be nothing else.

While nothing is sacrificed to mnemonics as letters themselves are more easily remembered than figures, constant use of the letter notation will reveal many places where the memory is assisted. For example, C has a connection with Christianity, G with Geography, HM is Money, IC is Criminal Classes, FC Chronology and so on. Again, the alphabetical sub-arrangement often suggested assists largely in this direction. The main countries in the local list, once their notation is memorized, are always the same.

In the seven years of my experience as editor of the Expansive Classification, I have never heard one word of fault or criti-

cism from those who use it. The only criticism has been from those who were impatient because certain sections had not been published. I have never heard a suggestion of the need of amendment, except where rendered necessary by such non-appearance. The users are enthusiastic advocates of its adoption.

The only objection to the use of the Expansive Classification which has any legitimate basis is that the "seventh is not finished." The delay has, I know, been very exasperating to some, especially in those libraries having large sections in the natural sciences, natural history and technology.

The seventh classification is complete and printed, except Chemistry and the manufactures section of Technology. In the sciences, the following are ready for distribution:

Mathematics	40	pages
Physics	40	"
Microscopy	16	"
Meteorology, Mineralogy, Crystallography, Geology	48	"
Biology	19	"
Botany	29	"
Zoölogy	88	"
Anthropology and Ethnology	36	"
316 pages		

The following have been distributed:

Military and Naval	24	pages
Astronomy	18	"
Technology	64	"

Since therefore I took charge in 1904, 414 pages have been compiled, edited and printed. The whole Decimal Classification has 256 pp. of classification in the sixth edition.

Some comparisons may be made without invidiousness between the Decimal Classification and the Expansive as regards extensiveness.

	D.C.	E.C.
Astronomy	6 pp.	18 pp.
Physics	5 "	40 "
Geology, etc	4 "	48 "
Biology & Anthropology	3 "	55 "
Botany	7 "	29 "
Zoölogy	5 "	88 "
Agriculture	½ "	10 "
Technology	14 "	about 100 "

Is there to be an index to the Expansive Classification? I can only say that a portion of such an index is compiled. I estimate that with the additions made necessary by the indexes to science such an index would require more pages than the whole Decimal Classification (three columns set close in the same type as the Decimal Classification Index.) There are now 65,000 entries in the index, and none of the four hundred pages of science are indexed. The mere printing and composition would cost thousands of dollars, enough to make the Expansive cost over twenty thousand dollars from its inception.

In the absence of Miss MAY SEYMOUR, reviser of the Decimal Classification, her paper on that subject was read by Miss Theresa Hitchler, head cataloger of the Brooklyn public library.

DECIMAL CLASSIFICATION

For convenience

D C is used for Decimal Classification

C D for Classification Decimale

I I B for Institut International de Bibliographie.

Scope of revision. The D C is undergoing comprehensive revision and enlargement, of which the 7th edition is merely a first installment. Changes proposed will be carefully studied and the few that promised clearly to justify their cost will be made. But no change will be made merely to fit a new theory, for theories are constantly changing and a shifting classification is impracticable for libraries. Private schemes for lectures or treatises may be changed with each season or edition to conform to the latest theories; but for libraries the cost would be prohibitive of renumbering a whole subject every time a new discovery showed a possible improvement in the scheme, while the necessity of classifying not only new books written with new light but also old books, all of which it is a library's function to keep, demands of a li-

brary classification a place for obsolete as well as current topics. If a scheme brings related subjects together, provides for adding new topics, and enables books on the same phase of the same subject always to be classed together and readily found when wanted, it is of comparatively little moment whether exact sequence on shelves accords with the latest theory. The Decimal Classification has now become so much the common language of libraries and bibliographies in all countries, that it is clearly undesirable either to make frequent changes or to ignore growth. Apparently a revision about every quarter century would be the golden mean between the costly and impracticable changes of trying to keep up to date, and the opposite extreme which would in time make any scheme seem medieval.

Plan. Besides subdivision of any subject to any required extent, there will be an increasing number of compact notes giving dates, facts, distinctions between allied numbers and similar data, often saving classifiers long search and greatly enhancing the value of the book for reference.

The revised index, being in linotype, will always be in a single alphabet, in which new entries will be inserted in their regular places instead of appended as heretofore in a supplement. The index aims to include every subject that classifiers may need to number, and missing ones will be added as fast as brought to notice and their place in the scheme decided.

Order of revision. The most imposing results (in both senses) in a given time would be reached by revising the easiest subjects first. Instead, they are taken up in order of greatest need, a policy which has placed some of the most difficult first. Those well under way for which farther criticism is needed are: 340 (Law), 570 (Biology, including anthropology and evolution), 581 (Physiologic botany), 660 (Chemical technology, including metallurgy), the rest of 610 (Medicine), with an extension of 132 (Mental derangements) closely allied to 616.8 (Diseases of nervous system), and 620 (Engineering). Apparently the next should be 200 (Religion) and 300

(Sociology). Expression of opinion is specially desired on choice of subjects for earliest revision.

When demand warrants, important subjects as fast as finished will be printed for the double purpose of accommodating users and of discovering faults by actual test before incorporation in the main work.

Details of 7th edition. The most important additions are in

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|----------|---|
| 020 | Library economy, now carried only through 025.29, but to be completed this summer for the new collection of the New York state library school. |
| 070.1—.9 | Journalism: theories, organization and business details. |
| 136.7 | Child study. Though the basis of methods in elementary education, the subject itself is a question of "mind and body." Those strongly preferring the material with education may add the subdivisions of 136.7 to 372.1, which is left vacant for this purpose. |
| 355-358 | Military science, subdivided closely enough for military collections even in large libraries, but to be carried much farther for military experts and special libraries. |
| 370 | Education. Made with the facilities of the large New York state library collection. |
| 540 | Chemistry. Revised from C D by agreement with I I P and with advice from John Crerar and Mass. Institute of Technology libraries and Concilium Bibliographicum. Revision of 546 and 547 was postponed by common consent. |
| 611-612 | Anatomy and physiology, including embryology, histology and general physiology of organisms. In agreement with Concilium and C D schemes are as they will be, except for a single minor item. |
| 621 | Mechanical engineering, including electric engineering. Revised in collaboration with University of Illinois, Mass. Institute of |

- Technology and three practical engineers, with much minor criticism.
- 623 Military engineering, substantially the same as C D.
- 640 Domestic Economy. Revised from the tentative table prepared by the Lake Placid conference on home economics and published in New York state library Bibliography Bulletin 22, 1901.
- 975.4&977 West Virginia, Ohio, Wisconsin, Iowa and Missouri schemes made by New York state library for its local history collection.

Besides these, isolated new notes and topics are scattered through the tables and added to the index. The index is reset in linotype, consolidated into one alphabet, and enlarged from 196 to 305 pages not only by heads from new tables but also by many new references to unrevised tables; e. g. automobiles and airships, 629.

Of the 49 numbers in the list of changes only 18 are really changed and most of those had been used either very little or not at all. Others are merely broadened, vacated, or varied by loss or addition of a single topic; and only 4 of the 49 are 3 figure numbers, while 2 of these 4 are only made more inclusive.

New features are: Biscoe and Olin book numbers appended after the Index tables, p. 789-91, and an index to the Introduction, p. 47-48.

Use of new tables. Repeating the caution and request introducing the new edition, classifiers are asked to use the new tables critically and report defects of any kind, with proposed remedies and any additional needed subdivisions; for, as the new schemes involve many new interrelations and extensive advance testing has been impracticable, it is expected that practical application will develop unnoticed faults.

Corrections and minor additions. A list of errors with corrections, minor additions to tables and new index references applying to earlier editions will be made up and mailed this summer. Owners of the 5th and 6th editions who fail to receive the list after

seeing notice of it in *Library journal* or *Public libraries* may know that we lack their correct addresses.

Separates. In response to a large demand by engineers, mechanical and electrical engineering will be separately published in a few weeks. Whenever demand will cover expenses, any other revised subject will be issued separately with general explanation, 3 figure tables of other subjects and index.

Basis of revision. New subdivisions are based on those made by the I I B in its greatly enlarged French translation La classification décimale. The reason is this: when in 1895 the new Institut International de Bibliographie adopted the D C as best adapted to its stupendous enterprise of making a classed bibliography of all subjects in all languages in all periods of the world's history, its promoters urged the author to expand the whole scheme immediately. Official duties made it then equally impossible either to make the extensions or to criticise adequately those drafted by the Institut, so that the Institut was authorized to publish its tables and promised that the American revision would adopt them with the least practicable change.

Existing differences between D C and C D are of two kinds: (1) those where C D abandons D C subdivisions and substitutes its special signs, so that there is no conflict or confusion; (2) those where the same number has a different meaning in D C and C D. These will soon disappear, as the Institut has already accepted the D C meaning for some and it is the settled purpose of both Institute and Mr. Dewey to harmonize the few remaining differences.

Adoption by I I B of the D C has naturally given a great impetus to its use in foreign countries and led to its translation into the leading European languages. It is the official classification of Norwegian and Canadian public libraries.

I I B combination signs. These fascinate a close classifier and multiply numbering capacity with relatively few characters almost to infinity. They are explained in the prefatory note to the 7th edition, but are

not incorporated in the tables because believed too complex for ordinary use. The secretary general of the Institute, M. Henri La Fontaine, assured us, however, when at Lake Placid a few days ago, that the Institute clerks, who are public school boys and girls 16 or 17 years old, assign and arrange numbers containing these signs accurately and easily, so that our fear of them is really groundless.

Future of the Decimal classification. The decision to seek a golden mean between stagnation and instability by periodic revision (perhaps every 25 years) to fit unforeseen needs, the permanence of the classification shown by the few changes needed at the close of its first 35 years, the constant enlargement of tables and index, the inherent capacity of the scheme for unlimited growth, its adaptability to any language, the international nature of its notation, its increasing industrial applications, its already widespread and rapidly growing use by libraries and for international coöperative bibliography, seem to justify the confident expectations of its European sponsors that it will become the standard classification of the world.

CHARLES MARTEL, chief classifier of the Library of Congress, sent a paper concerning the "Library of Congress Classification," which was read by Miss Harriet A. Wood, of the Portland, Ore., library association.

LIBRARY OF CONGRESS CLASSIFICATION

During several years past requests for information in regard to its classification were received by the Library of Congress in increasing number. The interior service of the library itself could not be supplied readily with the requisite number of copies of the schedules as the re-classification advanced. To satisfy administrative requirements and to meet more promptly and satisfactorily requests from other libraries it was decided therefore to put the existing schedules into print. As the re-classifica-

tion of several main classes was still in progress (three being incomplete at this date), revision of the substance had to be dispensed with for the time being and preparation for printing was practically limited to matters pertaining to the typographical disposition and arrangement.

A similar request was recently addressed to the library by your chairman who thought that a statement concerning the Library of Congress scheme would prove profitable and interesting to this meeting of the Catalog Section. In offering the following brief description in response to that request it may be noted that the scheme is not and does not mean to be competitive. It is a scheme devised for the library's own collections. Its possible interest to theorists and its possible applicability to other libraries is gladly recognized by furnishing copies of it and answering questions concerning it. But it is not offered as a model scheme nor one compiled with a view to universality. In these respects it differs fundamentally from both the Decimal and Expansive classifications and in presenting it in conjunction with them on the same program it is desired to disavow any intention of seeking to compete with them. As it stands, the statement is taken substantially without modification from a paper prepared by me for the New Zealand Library Conference, April 17-21, 1911, entitled "Classification. A brief conspectus of present library practice."

In 1907 a descriptive pamphlet on "The Library of Congress and its work" was issued from which the following may be quoted: "The new system of classification is devised from a comparison of existing schemes (including the 'Decimal' and the 'Expansive') and a consideration of the particular conditions in this library, the character of its present and probable collections, and its probable use. It is assumed that the departments of history, political and social science, and certain others will be unusually large. It is assumed that investigators will be freely admitted to the shelves. The system devised has not sought to follow strictly the scientific order of subjects. It has sought rather conven-

ient sequence of the various groups, considering them as groups of books, not as groups of mere subjects. It has sought to avoid technical, foreign, or unusual terms in the designation of these groups. It has selected for the symbols to denote them: (1) for the classes, a capital letter or a double letter; (2) for the subclasses, these letters combined with a numeral in ordinary sequence. Provision for the insertion of future groups is: (1) in intervening numbers as yet unused; (2) in the use of decimals."

This notation secures for future development the greatest possible elasticity in providing for intercalation of new classes or subclasses as well as for divisions and subdivisions under subjects. A third letter could be resorted to without inconvenience if desired, while the numbers for divisions might be easily converted into decimals by writing them in the form 0001 to 9999. The advantage of a shorter mark for many thousands of books was considered to outweigh the slight esthetic defect of a little less symmetry in appearance. This consideration was also one of the factors which determined the incorporation of the local lists in the schedules themselves wherever a country or other local subarrangement was desired under a subject, at the loss (to a certain degree only, however) of the mnemonic value of a constant symbol for such divisions when affixed to the subject number as is the practice in the Expansive and the Brussels schedules and less effectively in the Dewey Decimal classification. The other factor and the far more important one is that the Library of Congress arrangement permits the grouping under a country of all the subdivisions of a subject in logical order which are immediately related among themselves and have jointly a more intimate relation to the country than to the general theoretical works on the subject, while the mechanical application of a local list under every subject and various subdivisions under it has the effect of scattering in many places material which belongs together. The value of the Library of Congress practice will be recognized, I believe,

if for instance the subarrangement of such subjects as Money, Banking, and Insurance is examined in class HG. This does not preclude the introduction of more or less extended local lists under special subjects whenever that interest predominates, as is often the case with questions of the day in the stage of discussion. The schedules also embrace a mass of technical detail in the way of tables of form divisions and similar devices for the treatment and orderly arrangement of masses of material such as official documents and the like. As a convenient and reasonable compromise between the chronological (or scientific) arrangement of single works which separates editions of the same work, and the alphabetical arrangement by author, which places side by side works belonging to different periods of development of a science, period divisions with alphabetical subarrangement have been introduced; they are fixed to correspond as nearly as may be to the periods of development of the science in any given case. Pamphlets and similar material are, however, as a rule arranged by date even within the period division. It is hoped that such specifications in the schedules may be of service to others who have occasion to deal with these minor problems.

The general principle of arrangement within the classes or under subjects is as follows: (1) General form divisions: Periodicals, Societies, Collections, Dictionaries, etc. The placing of this material at the head of a class, or subject, has besides its logical justification, the great practical advantage of marking on the shelf, visible even at a distance, the beginning of a new subject. (2) Theory. Philosophy. (3) History. (4) Treatises. General works. (5) Law. Regulation. State relations. (6) Study and teaching. (7) Special subjects and subdivisions of subjects progressing from the more general to the specific and as far as possible in logical order. When among a considerable number of coördinate subdivisions of a subject a logical principle of order was not readily discernible, the alphabetical arrangement was preferred. The general principle has also, to a certain

extent, governed the order of the main classes, looking upon the group as a comprehensive class; A Polygraphy; B Philosophy, Religion; C—G Historical sciences; H—K Socio-political sciences, Law; L Education; M Music; N Arts; P Language and Literature; Q Science; R—V Applied sciences, Technology, etc.; Z Bibliography, the Index to the whole.

It is expected that in the course of the year all the schedules will be printed. They have been applied in the classification of over 1,000,000 volumes in the Library of Congress and when completed will have been tested on twice that number. A number of other libraries, among them several highly specialized ones, are using this classification and have expressed themselves well satisfied. Their experience in some cases points to the conclusion that with the Library of Congress printed cards and classification a library may be more economically cataloged and classified and with better results than by any other method at present available.

The next paper, written by WILLIAM STETSON MERRILL, chief classifier of the Newberry library, Chicago, was read by Miss Bertha Wakefield, head cataloger of the Seattle public library.

THE PROBLEMS OF CLASSIFICATION AND AN A. L. A. CODE

In American and English libraries and presumably to some extent in Continental libraries, the problems of classification are becoming more and more practical in their scope. The makers of classifications to-day must work out their schemes with an eye to practice and convenience as well as to theory. The classification of human knowledge, the true or ideal arrangement of the sciences in orderly sequence, is a problem that has occupied thinkers from the time of Aristotle to our own. This problem, interesting in itself, is of importance to the librarian. But in adopting a classification for his own use, the librarian must bear in mind many other

features of a classification besides its ideal unity, consistency or logical arrangement. One may say that any system, however consistent and philosophic, which does not suit the every-day needs of public libraries to-day, has no chance of general adoption or of continued use. Libraries must move with the time; they share in the bustle of business to some extent and they must yield to its demand for organization; they are susceptible to the strife of competition and must suit their practice to bring about quick and effective results. Information is demanded to-day in compact and authentic form, and people must have it "right away." Belated subjects are looked for near one another; the plan of classification is expected to reflect the literature which it arranges, not to break it up into arbitrary divisions. So far as classification can accomplish these ends and meet these demands it is bound to do so. Practical usefulness is the criterion by which a new system must be selected; it is also the test by which existing systems will be tried in the future.

There are a number of systems of classification in the field, logically arranged and carefully worked out with reference to the practical needs of libraries. The librarian who is about to classify or to reclassify his library may choose between them. Each has certain points of advantage and of disadvantage which must be weighed and considered with reference to the character and needs of the library adopting it. Certain prime requisites may, however, be mentioned which should be found in any system of classification either now in use or intended for the use of American libraries, and without these characteristics it is safe to say that no system will continue to hold its own in library science.

The first requirement of a classification is that it shall be adapted to classify the literature of the present time as well as of past time; that is to say, in nomenclature and arrangement it must be either up to date or else capable of modification to make it so. The second requirement of a classification is that it shall be expansive or susceptible of addition to accommodate new

topics, new points of view, new sciences and new affiliations of old sciences. The word expansive is used here in a wide sense. Any system that allows the insertion of new headings in their proper places in the scheme, either by leaving gaps or by allowing for an indefinitely expanded notation, fulfils this requirement, whether the system is called expansive by its author or not. This brings us to a third feature of classification, namely, that its notation shall not hamper its due expansion and growth, but shall serve as a means of conserving its orderly arrangement. Too often, it is to be feared, a desirable change or the addition of a new heading in a system of classification is deferred because the notation does not allow for it. This is to invert the true function of a notation.

Such may be called the general problems of the classifier. They form part of the law of his profession; let us turn now to its practice. That there are serious problems in the actual assignment of books to their appropriate classes has been brought home to every classifier of experience, and the longer he classifies the more numerous and serious seem these problems; at least such is my experience after sixteen years devoted almost exclusively to this branch of library service. Some of these problems may be grouped as follows: (1) the determination of the primary content of a book; (2) choice between two or more topics in a book, given equal or nearly equal weight; (3) conflict of two classes facing, like Janus, two ways; (4) the treatment of individuals; (5) form versus content; (6) indexing. As these headings are somewhat abstract, let us consider them briefly in the concrete.

The first principle of library classification is, or in my opinion should be, to classify a book according to what may be called its primary content, or in scholastic terms, according to the "first intention" of its author. "What is this book about?" should be in the mind of the classifier, not "Why is it written?" or "Where will it be useful?" Let it be noted that usefulness is, of course, the main purpose of classification but for

practical purposes it is best attained by following a scheme of classification and not by departing from it. The scheme itself is supposed to group a class where it will be most useful; the practice of the classifier should be to place under its class every book that belongs there by its main content.

The choice between two topics treated in a book has two aspects. First, the arrangement of the classification itself may separate, for example, art from archaeology, politics from history, drama from theatre. Or a question may arise from the dual content of the book itself, which may treat of two things, two subjects, or the influence of one agency upon another. Shall a book on the influence of Italian upon French literature go under the first or under the second literature? Where shall we class the controversy between Fénelon and Bossuet regarding Quietism, a matter both personal and theological? Shall memoirs and biographies of individuals always go in the class biography or shall the classification be determined by the amount of personal element in the book? Books on "geography and history," "music and morals," "evolution and the fall of man" are problems seemingly indifferent as to solution unless the classifier is guided by certain principles of procedure; and unless he have a grasp of principles, a classifier runs the risk of continual inconsistency in his work.

The question of form versus content relates to the proper classification of series, poetry, drama, ballads, historical fiction, periodicals and the like. Here classifiers will differ as to following the subject of the book or classing it by its literary form.

Finally the bearing of an index of the classification upon the subject catalog of the library is one that demands careful consideration. The relation of the classification itself to the catalog and to reference work is a broad subject, and all that may be said here is that duplication of work should be avoided. The subject catalog should be planned to bring out always some aspect, grouping or bearing of a subject that is not brought out by the classification, and *vice versa*.

This most cursory survey of the field cer-

tainly reveals one significant feature of classification to-day, namely its lack of code of procedure. Every classifier must learn somehow or other to classify; he learns this partly by instruction but more by experience. Yet the fruits of his experience are, as a rule, available to no one besides himself. Some libraries keep a record of important decisions regarding the classifying of books, such as series, memoirs, books of dual content and the like. But it is doubtful if any library has set seriously to work to reduce these decisions to a system of principles applicable to various types of books. Certainly classifiers of less experience get practically no assistance in this direction from their better equipped colleagues.

The time has come, in my opinion, for the A. L. A. to take in hand the compilation of a code of procedure for library classification. The task may well be undertaken by a committee acting along lines similar to those followed by the committee on catalog rules. The field is virgin soil; its capacities are as yet almost unknown. But I am convinced that when we begin to cultivate it the yield will be a surprise all round. The cataloger has had perhaps all the aid and attention that he needs for the present. Let us turn now to the classifier. The course of procedure in classification has been left either to the incidental directions or expressions of opinion scattered through the published schemes, or to the individual judgment of classifiers or teachers in library schools. Procedure in the department of classification is in the stage that cataloging was before the publication of Cutter's Rules. It is a congeries of maxims, opinions and local practices. Let us gather and sort these maxims, and when we have discerned the principles underlying them, let us formulate these principles into a code that may be as practical and as useful to the profession as our catalog code has proven to be. Such a work is timely, it looks practicable, and it is certainly worth the doing.

The following resolution sent by Mr. Merrill, was read and approved and ordered referred to the Executive board:

WHEREAS, there has hitherto been no general code of practice for the use of library classifiers, embodying the principles of classifying books and codifying the gathered experience of expert classifiers; and

WHEREAS, such a code may be of service in connection with any recognized system of classification or notation,

BE IT RESOLVED by the A. L. A. Catalog section, in conference assembled, that the Executive board of the American library association be advised and requested to appoint a Committee (1) to consider the advisability, practicability and mode of procedure of compiling an official code for classifiers; (2) to report at an early date to the Executive board; and (3) to be empowered by the Executive board to take such further steps as shall be deemed best.

The subject of the next paper was "Indexing and Indexes," by EMMA HELEN BLAIR, of Madison, Wis., one of the editors of "The Philippines," and an expert indexer. In the absence of Miss Blair her paper was read by Miss Oakley.

INDEXING AND INDEXERS.

Mr. W. F. Poole is quoted as saying that "indexing is a task that is only fit for prison convicts, but nevertheless it demands brains." It is often tedious, and much of it is drudgery to even the most optimistic temperament; but it has some compensations withal. There is a satisfaction in any kind of work which reduces chaos to order, which erects an edifice from scattered piles of brick and lime and lumber, which cuts roads through the wilderness for travelers and explorers; and just such benefits as these are conferred on the reading public by good indexers. Most books outside of fiction and other light reading are used more for reference than for steady perusal, and those who use them—from the high-school lad who wants material for his exercise in composition to the botanist who is listing all the mosses in the Lake Superior region—need guides to the information desired, even as a saving of time alone. And this not only for historical works, and sci-

entific monographs, and records of research on special technical lines, but even more for biographies, travels, books on education and literary criticism, etc.—wherein highly valuable and recent information is often hidden away in odd corners where few would think to search. An index is therefore a most helpful addition to a book which has added anything of value to the general store of knowledge, in any line of thought or discovery. Both publishers and writers realize this fact more than they did a few decades ago, and most "worth while" books now have indexes of some sort.

But there are indexes and indexes. Often the reader encounters a mere finding-list of names, personal and geographical, not unfrequently attached to a string of figures without distinction or explanation. It takes much enthusiasm to make him wade through 25 to 50 page-references, many of which may prove to be mere mentions of the subject. Sometimes the indexer—especially if he be the author of the book, and a novice in indexing—will add a sort of drapery to this framework of name-lists by giving similar strings of page-references for a few subjects in which he happens to be especially interested, and to such extent as he regards important. The only really satisfactory style of index for a book is the analytical; but the extent and closeness of the analysis will of course vary with the nature and needs of the book indexed. The important series of voyages, travels, and historical works published by the Hakluyt Society of England is a perfect treasure-house of information about all the countries in the world and their peoples, and sadly needs an index; presumably one for the first series (containing 100 volumes) is in process of making by the secretary, who announced this undertaking some five years ago. Another series of great value is The Sacred Books of the East, in 49 volumes; the index to this has just been finished by Prof. M. Winternitz, who has worked at it since 1894, and it is characterized as "an analytical index aiming to be a scientific classification of religious phenomena."

Many books of scientific and technical

nature are hard to index, except by a person who has had training on such lines or at least some acquaintance with the subject, especially when they deal with the science of thought; such books usually require at least the supervision of a scientific expert. But when they are concerned with the science of fact, they should be handled without serious difficulty by a person of clear, systematic mind who has a wide range of general knowledge and reading. Indeed, this background of general knowledge is an important factor of success in any quasi-literary work, as proof-reading, indexing, and translating; in any of these there seems to be use for every scrap of knowledge that one has ever picked up. The old-time printing office rule was, "Follow copy, if you follow it out of the window;" but it will not answer to take refuge behind this in some cases, even when the copy is typewritten. At times, the responsibility falls on proof-reader, indexer, and translator of deciding what the copy or original ought to be, rather than what it is; they must have some understanding of what the author meant to say, or really thought, or ought to have stated, and make due correction or query.

Another field for indexing is that of magazines and newspapers, and the journals and transactions of learned societies; this is usually an easier kind of work, since in most cases only the names of writers, the titles of papers, and the subjects of the latter, are required. Unfortunately, most work in this field has been very poorly done—so much so, that Mr. Poole in his invaluable index of periodicals was compelled to adopt the rule, for himself and his assistants, of not using the magazine indexes. Occasionally a periodical devoted to some scientific or professional field will desire a fairly comprehensive index of that special subject in its various aspects or connections. Some of the leading daily newspapers in the large cities have had their files indexed; some others have attempted or begun such indexes, but soon abandoned the effort, because of its cost. This timidity, however, is short-sighted, if the proprietors can possibly spare the money; for each

year's neglect renders greater the difficulty of reference to the past files, and the apparent cost of the necessary work, while the yearly cost of keeping it up is comparatively small when once the previous files are indexed. An index of this sort requires the best sort of work, and a person of experience, judgment, and knowledge of the world of affairs—especially an acquaintance with political matters, both general and local.

Still other places where this sort of work is demanded (and it is a steadily increasing demand) are state departments and commissions, municipal offices, banks, insurance and railway companies, law offices, commercial firms and publishing houses. In all these places the idea of indexing has arisen with the great increase of business the world over, in both extent and complexity; and it is simply a feature of the systematic and methodical organization which is everywhere rendered necessary by that increase.

What sort of person is suited for doing such work? The qualifications and equipment that it requires are more native than acquired, more in personality than in book-learning; yet these latter furnishings are of great value. The first-class indexer is, like the poet, the critic, the translator, "born, not made;" yet we would all rejoice if there were fewer vacancies in the ranks of the second class, in all those kinds of achievement. Indexing is not commonly classed with the fine arts or the learned professions; but let not him who practices it regard it as a trade. To him, at least, it should be as an art and a profession; and, if he so regards it, that feeling will be evident in the quality and value of his work when done. It is only work of this sort that will bring the demand for more. It is certainly as true in indexing as in all other employments that really successful work must be the expression of high ideals in standards and aims; and that, since such ideals are all too rare among workers in every line, there is "always room at the top."

To "index" a book is, according to the dictionary, "to point out, to render available

the information therein contained." But the indexer himself must first see those things before he can show them to others; nor can he safely halt at mere facts and figures in the text. He must be able to see the real meaning or import when it is only implied, the undercurrent of the author's thought or purpose, the tendencies of a nation's social life, the basis of its economic conditions, or the gradual development of a scientific theory. Next is needed what a well-known librarian calls "the classified mind," which marshals all these facts and theories in orderly array, in systematic connection, in logical sequence. There are three main plans of arrangement under the respective headings: the alphabetical, the chronological, and the logical. Each of these has special advantages for special purposes; the nature of the matter indexed must determine which should be chosen in each case. Always the aim should be to render the information accessible to its readers in terms as simple, clear, and accurate as possible—to which end the indexer should not let himself be trammelled beforehand by any mere theory or cut-and-dried plan of work. It is as true in indexing as in cataloging and classification that any system must, to be really useful and valuable, have sufficient elasticity and flexibility to adapt it to varying circumstances and needs, and that "cast-iron" rules are often far more honored in the breach than in the observances. It would be folly to use the same plan for indexing Prof. William James's book on "Pragmatism" and Lieutenant Shackleton's report of his Antarctic explorations. Each book shapes a system for itself, according to its purpose and scope. Shall the analytical index be full or short? This requires a suitable sense of proportion: the subjects discussed within one book may be of varying importance, and sometimes but few of them need extensive development, so that it would be waste of time to treat them all alike. Nor is it well to supply much predigested food for the reader; as long as he can reach it easily, it is better that he do most of his own cutting and chewing, unless the matter is unusually difficult or complicated.

When the indexer undertakes a piece of work, how can it be best performed? The prime requisite in method is economy of labor and time, both of these being equivalent terms for money—which neither publishers nor authors, and still less commercial houses, are inclined to lavish upon such work. Very few persons have any adequate idea of the cost of making an index of any sort. The other day I received a letter relative to "a card index for the — Journal (27 volumes). Kindly give an estimate of the time this work would require, and the probable charge for the same." As no other data were furnished for the estimate asked, it reminded me of the experience of the prophet Daniel, when the king not only desired him to interpret his dream, but to relate the dream itself, which the king had forgotten.

Some printed instructions for indexing advise the student to make all his single index cards, then verify and check each entry from the text, then arrange the slips in the desired order, and finish by copying them all on clean sheets for the printer. I have known of a few indexes made in this way, and consequently about twice as expensive as they ought to be; but the employers are not likely to follow this plan a second time, and no publisher or editor who knows anything about indexing is willing to pay for such waste of time. A good indexer will make each entry correctly at the start, and not need to verify it; he will write each card in a good legible hand which can be used as it stands for printer's copy; and he will so plan the work as to avoid copying or rewriting cards, whenever possible. If you will pardon the personal allusion, I will describe my own plan for economy of time and effort. As I make each card with its subject-heading and first reference thereto, I lay it on the table before me, in its proper alphabetical place; and for each new reference to that subject I add simply the page-number to that card, until it is full, or the subject is no longer mentioned; one card will thus contain from 20 to 40 page-references. As the cards increase, I place them in piles keeping together those of a similar meaning or rela-

tionship, and following wherever practicable, an alphabetical arrangement. Personal names I place in one pile, alphabetically. If I want any card I can turn to it quickly, to add a new reference; nor do I use as much time in this as I would spend in writing a new heading for another card; moreover, I thus save the handling of an immense number of cards when I come to the sorting and arranging after the first cards are written. At the present time I have on my table about 5,000 cards, thus classified, in 50 piles, representing the work of indexing a series of over twenty volumes; and most of them are all ready for the printer. If each entry had been written on a separate card, I probably would have on hand some 15,000 cards, at a low estimate. To do work in this way requires considerable experience, with a good memory, and what the phrenologists call a good bump of locality; and many persons choose the more diffuse and cumbersome method rather than try to keep so many cards in mind. But, as it has been already stated, there is no iron rule for this; each person should find out in what way he can work most naturally and effectively, and follow it.

The headings for cards should be selected with judgment, accuracy, and sense of their relative importance, and should be worded very clearly and concisely; they constitute the basis on which the index-matter will be classified in its compilation, and should be such as the reader of the book would most naturally look for. After all are written, they are arranged in alphabetical order, cards under one heading combined when necessary, and cross-references inserted when these are desirable to connect subjects related to each other; finally, all are pasted on sheets, in due order, and are ready for the printer.

A few suggestions may be made as to indexing the clippings, circulars, old magazines, and other stray material that drifts into a library or a professional man's study. We all know how such flotsam accumulates—often not worth classifying and cataloging, yet containing something one wishes to use and preserve. The daily newspapers

contain much that is useful for reference and for library bulletins, especially where school children and study-clubs undertake to keep track of current events. The specimen or duplicate copies of magazines and illustrated weeklies, sometimes also book-circulars, contain views, portraits, historic scenes or buildings, fine engravings, colored pictures of birds and flowers, which are worth saving. There is much material in magazines and newspapers describing the educational and philanthropic movements of the day, that may be used to advantage by local welfare associations. The librarian may save much of the above-named material, and friends of the library can be secured in almost every community who will aid her in similar ways. If pictures, clippings, etc., are roughly classified, and placed in pamphlet cases, or card or envelope boxes, or large manila envelopes, they will occupy but little space and can be easily found when required. For this purpose, each should have a corresponding index-card, on which is written the subject, name of magazine or paper from which it was taken, and a reference to the box or envelope in which it is kept—the latter to be designated by some word, letter, or number, which is repeated on the card. As these cards are for merely occasional or temporary use, they may be written with a pencil and require no elaboration in style; centimeter spacing, and red-ink headings, and canary cards are quite superfluous for this use. When the club-woman wants information about open-air schools, or folk-dances, or juvenile courts, the librarian is quite likely to find in her boxes some information on these subjects that is not in printed books, but showing what is being actually done at this very time in Chicago or Rochester or Boston. Or she can give the school children a description of King George's coronation, or an account of the way in which Uncle Sam recently obtained in Algeria, many new varieties of dates to be planted in the hot deserts of Arizona, or the narrative of Dr. Grenfell's noble mission work in Labrador—all beautifully illustrated; and the simple index above described will enable her to turn very quickly

and easily to any of them. This is only one of the many ways in which the people, especially the children, may be brought into closer contact with the world of affairs, the great movement of human progress which never before in the world's history has been so rapid and broad.

I have not had leisure to ascertain to what extent indexing is taught in the library schools; but I was told about three years ago, by two of the most prominent librarians in the country, that the demand for such instruction was increasing and that it ought to be given in the library schools. It would seem a pity to load upon most of their students much work additional to their present strenuous and intense curriculum; but, where judicious substitution can be made for some of their work, or where some of it can be required before entrance, those schools would seem to be a fit and proper agency for providing instruction in both indexing and proof-reading. Room for this may be found in the probable changes which for some time have been visible on the horizon, in the scope, conduct, and methods of the library schools of this country—changes which will doubtless be hastened and shaped to a considerable extent by the establishment of the proposed institute for library training in New York City with a rich endowment by Mr. Andrew Carnegie. This new institution may reasonably be expected to establish new and higher standards of training, and to furnish advanced and more highly specialized courses of study, with new and up-to-date methods; and those features will naturally reflect their influence and be to some extent repeated in the other schools. Definite results in the advancement of library work and standards must certainly result from the recent establishment of the A. L. A. section for matters connected with professional library training. The outlook is very hopeful in all directions.

Mr. C. W. Andrews read the following letter from Miss Harriet W. Pierson, of the catalog department of the Library of Congress:

Mr. Andrew Keogh,
Yale University,
New Haven, Conn.

May 13, 1911.

Dear Sir:

I wish that the question of the official English form of name for international congresses and bodies might be discussed at the meeting of the American library association. The A. L. A. rule is as follows (101):

International meetings. Enter international meetings, conferences, and congresses, of private persons, under their English names provided their publications have appeared in English or that language is specified as one of the official languages of the conference. In other cases enter under the name in the language in which most of the publications have appeared, or when this cannot be ascertained, under the name by which the conference is best known.

International congress of Orientalists, with references from Orientalists, International congress of; Congrès international des orientalistes; Internationaler orientalisten congress, etc., etc.

This seems, on the whole, to be the most satisfactory rule that could be framed. Experience has shown, however, that much time is consumed in searching for the English form of name; if found, it is difficult to choose one of several forms; if not found, and entry is printed in vernacular form, it frequently happens that the English name soon afterward appears, and the cards have to be reprinted, involving no little expense.

As is no doubt known to you, there exists at Brussels an institution called the "Office central des institutions internationales," which has published a work most useful to catalogers, entitled "Annuaire de la vie internationale. 1908-09."

It seems to be within the scope of the work of the Office to simplify and to make uniform the names of international meet-

ings and bodies. May not American librarians very properly make a recommendation to the Office to the effect that they secure from the various international organizations which have English speaking delegates, an official form of the name *in English*, this to be printed in a new edition of the Annuaire, or in the publications of the congresses, as is already done in a few cases.

I understand that the committee to consider the extension of the international cataloging rules will probably have its headquarters in Brussels. If invited to do so by the A. L. A. Catalog section, would not this committee be able to arrange the matter with the Office central des institutions internationales?

Very respectfully,
(Signed) HARRIET W. PIERSON.

Mr. Andrews said he heartily endorsed her suggestion; that at The John Crerar library the French form is used, but he would be glad to see an official form adopted. It was voted to refer the matter to the Executive board.

Mr. Lane, librarian of Harvard university, explained the system of classification in use in the university library, and also gave much information in regard to the printing of catalog cards undertaken by the library, the field covered, price of cards, etc.

After miscellaneous discussion the nominating committee reported as follows for officers for 1912:

For chairman, Miss Laura A. Thompson, cataloger, Library of Congress, Washington, D. C.

For secretary, Miss Mary Elizabeth Hawley, asst. cataloger, John Crerar library, Chicago. These officers were elected.

Adjourned.